

Listing of Claims:

This Listing of Claims is identical to the Listing of Claims submitted to the PTO on June 3, 2004 in an Amendment and Response. This Listing of Claims will replace all prior versions and listings of claims in the application.

1. (Previously Presented) An assay device comprising an array of non-nucleic acid molecules wherein each molecule in the array, with the exception of a negative control, is capable of interaction with its respective binding partner in a biological sample and wherein the pattern of interaction between the molecules and the binding partners is indicative of a condition.
2. (Currently Amended) An assay device comprising an array of non-nucleic acid molecules wherein each molecule in the array, with the exception of a negative control, is capable of interaction with its respective binding partner in a chemical library, phage display library or environmental sample, and wherein the pattern of interaction between the molecules and the binding partners is indicative of a particular binding partner in said libraries or sample.
3. (Previously Presented) The assay device of claim 1 wherein the biological sample is from a human or non-human animal.
4. (Canceled)
5. (Previously Presented) The assay device of Claim 1, wherein the condition is cancer.
6. (Previously Presented) The assay device of Claim 1, wherein the binding partner is an antigen.

7. (Previously Presented) The assay device of Claim 1, wherein the array comprises immunoglobulins in discrete regions of a solid support and the binding partners are antigens expressed on the surface of or released by a cell.

8. (Canceled)

9. (Currently Amended) The assay device according to Claim 8—1 or 2 wherein the molecules are immunoglobulins~~are monoclonal antibodies~~.

10. (Currently Amended) The assay device of Claim 89, wherein the immunoglobulins are specific for an antigen selected from the group consisting of: the cluster of differentiation (CD) antigens, myeloid (MY) antigens and lymphoid (LY) antigens expressed on leukemic cells.

11. (Previously Presented) The assay device of Claim 1, wherein the condition is non-neoplastic.

12. (Previously Presented) The assay device of Claim 11, wherein the non-neoplastic condition is a disease or disorder of the immune system.

13. (Previously Presented) The assay device of Claim 11 wherein the condition is selected from the group consisting of: an autoimmune disease, infection by a pathogen, congenital immunodeficiency, adverse reaction following bone marrow or tissue transplantation and chronic fatigue syndrome.

14. (Previously Presented) The assay device of Claim 1 or 2 wherein the non-nucleic acid molecules are immobilized on a solid support and are in an arrangement in the array such that upon interaction between the molecules and the binding partners, a differential pattern of density provides an identifiable signal.

15. - 35. (Canceled)

36. (Previously Presented) The assay device of Claim 1, wherein the biological sample is from an animal, avian species, or plant.

37. (Previously Presented) The assay device of Claim 1, wherein the condition is selected from the group consisting of: a normal condition, a disease condition, a disorder, and a propensity for the development of a disease or disorder.

38. (Previously Presented) The assay device of Claim 2, wherein the pattern is further indicative of the type and/or amount of the binding partner.

39. (Previously Presented) The assay device of Claim 6, wherein the antigen is a chemical or wherein the antigen is a peptide, or a polypeptide in a phage display library.

40. (Previously Presented) The assay device of Claim 39, wherein the chemical is from a chemical library or an environmental sample.

41. (Previously Presented) The assay device of Claim 1, wherein the array comprises immunoglobulins in discrete regions of the solid support and the binding partners are chemicals or a peptide or polypeptide in a phage display library.

42. (Previously Presented) The assay device of Claim 41, wherein the chemicals are in a chemical library or an environmental sample.

43. (Previously Presented) The assay device of Claim 13, wherein the autoimmune disease is selected from the group consisting of Type 1 diabetes, multiple sclerosis, myasthenia gravis, pernicious anaemia, psoriasis, rheumatoid arthritis, scleroderma and systemic lupus erythematosus.

44. (Previously Presented) The assay device of Claim 13, wherein the pathogen is selected from the group consisting of: a virus, a bacteria, a protozoan, and a fungus.

45. (Previously Presented) The assay device of Claim 44, wherein the virus is selected from the group consisting of: HIV-1, Hepatitis virus, and Epstein-Barr virus.

46. (Previously Presented) The assay device of Claim 44, wherein the protozoan is the malaria parasite.

47. - 52. (Canceled)

53. (Previously Presented) The assay device of Claim 1 wherein the binding of a binding partner to an immobilized molecule is determined using a labeled antibody to the same binding partner or to a different partner associated with said first binding partner.

54. (Previously Presented) The assay device of Claim 2 wherein the binding of a binding partner to an immobilized molecule is determined using a labeled antibody to the same binding partner or to a different partner associated with said first binding partner.

55. (Canceled)

56. (Previously Presented) The device of Claim 1, wherein said non-nucleic acid molecules are antibodies or antibody parts.

57. (Previously Presented) The device of Claim 56, wherein said antibodies or antibody parts are bound to the array covalently or by first binding protein G to the array.